

Title (en)  
PROCESSING CO2 UTILIZING A RECIRCULATING SOLUTION

Title (de)  
CO2-VERARBEITUNG MITHILFE EINER RÜCKFÜHRUNGSLÖSUNG

Title (fr)  
TRAITEMENT DE CO2 EN UTILISANT UNE SOLUTION DE RECYCLAGE

Publication  
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Application  
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- US 2009067764 W 20091211
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- US 17008609 P 20090416
- US 17847509 P 20090514
- US 23942909 P 20090902
- US 25464009 P 20091023

Abstract (en)  
[origin: US2010150802A1] In some embodiments, the invention provides, a method comprising a) contacting a solution with an industrial source of carbon dioxide to produce a CO2-charged solution; b) subjecting the CO2-charged solution to conditions sufficient to produce a composition, wherein the composition comprises carbonates, bicarbonates, or carbonates and bicarbonates; c) separating a supernatant from the composition; and d) recirculating at least a portion of the supernatant for contact with the industrial source of carbon dioxide. In some embodiments, the invention provides a system comprising a) a processor configured to produce a composition from an industrial source of carbon dioxide, wherein the composition comprises precipitation material comprising carbonates, bicarbonates, or carbonates and bicarbonates and a treatment system configured to separate a supernatant from the composition, wherein the processor and the treatment system are operably connected for recirculation of at least a portion of the supernatant.

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Citation (search report)

- [XII] WO 2007106372 A2 20070920 - COMRIE DOUGLAS C [US]
- [XII] US 5792440 A 19980811 - HUEGE FRED R [US]
- See references of WO 2010068924A1

Cited by  
US10556848B2

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